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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,076	07/03/2003	Peter Robert William Myles	P68694US0	3475

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WASHINGTON, DC 20004

EXAMINER

XU, LING X

ART UNIT	PAPER NUMBER
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1775

DATE MAILED: 04/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/612,076

Applicant(s)

MYLES ET AL.

Examiner

Ling X. Xu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) 5,10,13,16-21,27 and 30-36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-9,11,12,14,15,22-26,28,29,37 and 38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 6-9, 22-26, 28-29 and 37-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lay et al. (US 5,598,674) in view of Kourtides et al. (US 4,598,007).

Lay discloses a lightweight composite glass panel used for internal and external building application (col. 1, lines 1-10) comprising a glass pane mounted on a supporting panel having two layers of aluminum sheeting with a polyethylene core (abstract).

Lay does not disclose the supporting panel having a honeycomb core structure as claimed.

With respect to claims 1, 3, 9, 25 and 37-38, Kourtides teaches a honeycomb core is sandwiched by facesheets and an adherent decorative film is applied on either or both facesheets (col. 8, lines 55-65). The facesheet is adhering the decorative film to one side of the facesheet and adhering the other side of the facesheet to the honeycomb core (col. 9, lines 14-20).

With respect to claims 2, 4, 24 and 26, Kourtide teaches that the facesheets are made of resin reinforced glass fiber (col. 7, lines 20-35).

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With respect to claims 6-8, 22, 28-29 and 37, Kourtides teaches that the decorative film has an eye-pleasing color and/or texture (col. 8, lines 55-67). The decorative film may include polyvinylidene, which is one of the vinyl polymers.

With respect to claim 23, Kourtides teaches that the honeycomb core is made of aluminum (col. 8, lines 35-55).

Kourtides also teaches that the composite structure as disclosed is lightweight and excellent fire resistance (abstract).

Therefore, it would have been obvious to one of ordinary skill in the art to use the honeycomb core structure as taught by Kourtides in Lay's glass panel in order to provide the glass panel with lightweight and improved fire resistant.

2. Claims 11-12 and 14-15, are rejected under 35 U.S.C. 103(a) as being unpatentable over Lay et al. (US 5,598,674) and Kourtides et al. (US 4, 598,007), as applied to claims 1-4 and 6-9, and further in view of Mauthe (US 4,391,662).

As stated above, Lay and Kourtides disclose the same composite structural panel as recited in claims 1-4 and 6-9.

Kourtides does not teach that the adhesive is made of ethylvinylacetate.

However, using ethylvinylacetate is well known in the art. Mauthe teaches the use of thermoplastic adhesives in a number of industries such as furniture, automobile, aircraft and construction industry. Mauthe also teaches that the thermoplastic adhesives have the advantage of being free of solvents and dispersing agents (col. 1, lines 10-25). Mauthe teaches that the known thermoplastic adhesives include ethylvinylacetates (col. 4, lines 15-30).

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Therefore, it would have been obvious to one of ordinary skill in the art to use ethylvinylacetates as the adhesive material for Lay and Kourtides composite structural panel because the thermoplastic adhesive material such as ethylvinylacetates is free of solvents and thus is capable to provide instantaneous bonding without the evaporation of solvent.

Response to Arguments

3. Applicant's arguments filed 3/6/2006 have been fully considered but they are not persuasive.

Applicant argues that Kourtides is not directed to structure for supporting heavy glass panel building components but is in the non-analogous lightweight structural aircraft panel art not having the same problems as building structures.

Arguments are not commensurate in scope with the claims. Because the claims do not require that the composite building wall structural panel to be a heavy glass panel. Materials used in the building components are not always heavy. In fact, the primary reference Lay discloses a lightweight composite glass panel (abstract) used for internal and external building applications (col. 1, lines 1-10).

In response to applicant's argument that Kourtides is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992).

Lay discloses a lightweight composite glass panel for internal and external building applications. Kourtides teaches that the honeycomb core composite structure is lightweight and has excellent fire resistance (abstract). The composite taught by Kourtides is lightweight structure material, which is the same type of composite materials used in Lay. Accordingly, Kourtides is considered to be the analogous lightweight composite structure. In addition, since many composite structure materials can be used for aircraft components as well as for building components. It would have been obvious to one of ordinary skill in the art to use the honeycomb core structure as taught by Kourtides in Lay's glass panel in order to solve the same problems encountered in both aircraft components and building components such as lightweight and fire resistance.

Applicant also argues that Kourtides does not teach the modification of Lay that would be necessary to create a hypothetical structure corresponding to the claimed structure because there is no disclosure of glass panels of Kourtides and there is no suggestion that the structure could be used for supporting the glass panels that are substantially heavier than aircraft panels.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

As stated above, the combination of Lay and Kourtides disclose the claimed invention. Lay discloses a lightweight composite glass panel (abstract) used for internal and external building applications (col. 1, lines 1-10). Lay does not disclose the supporting panel having a

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honeycomb core structure as claimed. Kourtides teaches a honeycomb core is sandwiched by facesheets and an adherent decorative film is applied on either or both facesheets (col. 8, lines 55-65). Since Lay's glass panel is a lightweight panel, the honeycomb structure disclosed by Kourtides should be able to support the lightweight glass panel disclosed by Lay.

Applicant also argues that the incorporation of the honeycomb core of Kourtides would not result in improved fire resistance because Lay's aluminum panels would obviously provide a high degree of fire resistance that would not be enhanced by use of Kourtides.

Applicant fails to provide any evidence or data to support the statement that Kourtides would not result in improved fire resistance. The arguments of counsel cannot take the place of evidence in the record. *In re Schulze*, 346 F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965).

Applicant also argues that Kourtides preferred honeycomb embodiments is formed of aromatic polyamide paper and the use of such in place of the polyethylene core of Lay might well reduce the strength of the layer structure.

Applicant's arguments are not commensurate in scope with the claims. Because the claims do not require the argued limitations such as the materials used to form the honeycomb core structure.

Applicant also argues that Claim 1 distinguishes over Lay in reciting a composite building wall structural panel. The glass panel 101 of Lay is bonded by PVC layer 120 to metal aluminum panel 110 and not to a honeycomb core panel of any type. The aluminum panel 110 is

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not a “non-metal interlayer skin” as recited in claim 1. Additional distinction of claim 1 is provided by the recital of a desired visual effect such as color and/or design provided to the adhesive interlayer so as to be visible through the glass panel.

Again, applicant's arguments are against the references individually. One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

As stated above, the combination of Lay and Kourtides disclose the claimed invention.

Kourtides teaches a honeycomb core is sandwiched by facesheets and an adherent decorative film is applied on either or both facesheets (col. 8, lines 55-65). The facesheet is adhering the decorative film to one side of the facesheet and adhering the other side of the facesheet to the honeycomb core (col. 9, lines 14-20). Kourtide also teaches that the facesheets are made of resin reinforced glass fiber (the “non-metal interlayer skin”) (col. 7, lines 20-35). Kourtides further teaches that the decorative film has an eye-pleasing color and/or texture (col. 8, lines 55-67), which is considered to be a desired visual effect.

Applicant also argues that Kourtides does not provide any teachings of achieving a desired visual effect such as color and/or design provided on an adhesive interlayer to be visible through a glass panel as recited in claim 1.

As stated above, Kourtides teaches that the adherent decorative film has an eye-pleasing color and/or texture (col. 8, lines 55-67), which would be visible through the glass panel.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

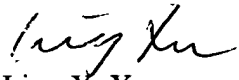
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling X. Xu whose telephone number is 571-272-1546. The examiner can normally be reached on 8:00 - 4:30 Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer C. McNeil can be reached on 571-272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Ling X. Xu
Primary Examiner
Art Unit 1775

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